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Plant Materials
Technical Note No. 8

East Texas Plant Materials Center
Nacogdoches, Texas

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Establishment of Eastern gamagrass
Tripsacum dactyloides

Introduction: Eastern gamagrass is a native warm season perennial capable of growing six to nine feet tall and producing clumps three feet in diameter. Eastern gamagrass can be established by seed or vegetative means.

Adapted Area: It is adapted to a large part of the eastern United States. However, sites which have deep, sandy textured soils and areas receiving less than 25 inches of rainfall are not recommended.

Guidelines for Vegetative Establishment

Native stands of Eastern gamagrass are suitable sources. However, when using a native colony as a source, leave at least half of the total number of plants. To increase survival, plants should be dormant when dug. Digging options include hand or mechanical means.

Digging and planting by hand is very labor intensive and recommended only for small areas. Individual plants may be dug with a shovel, sharpshooter or mattock. If digging by hand, remove as much soil as possible from the root system before dividing into smaller planting units. To divide the clump, pull the rhizomes (in groups of 2-3) apart. A hatchet and/or hand pruners may be necessary to accomplish this task. Leave as much root system as possible. Prune the leaves to 6-8 inches in height. Planting holes may be made with shovel, sharpshooter, hand post hole digger, gas or tractor PTO hole digger. Place the plants in the holes (see Table 1 below) at approximately the same depth as in the original clump. Firm soil around the roots making sure air pockets are not present.

Using mechanical methods is preferable. A two-step process is used. Dividing clumps is made easier by passing a chisel type implement through the clump's middle prior to the lifting operation. On sandier soils a peanut digger can be utilized to lift and separate clumps and shake excess soil from the roots. Usually, a peanut digger separates the rhizomes and the plants are ready to plant with only minor root and leaf pruning. A tree seedling lifter may also be used, however the same dividing steps will be required as with the hand dug method. For mechanical planting, the plants must be pruned to pass through a vegetable or tree planter. Using hand clippers, prune the roots to a length of 1 1/2 inches for vegetable planters and 2 1/2 to 3 inches for tree planters. After pruning roots, cut the leaves to a length of 6-8 inches.

If a mechanical vegetable planter is used, a clean, firm seedbed is needed. A powdery or trashy seedbed will interfere with the functioning of the planter.

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Table 1 Below is the approximate number of vegetative plants needed on a per acre basis for various spacings:

Spacing	Number of Plants
2 ft.	10,816
2.5 ft.	6,923
3 ft.	4,585

Planting Time:
Vegetative: February to March. Be sure the roots are covered with at least one inch of soil and the plant is standing in a near vertical position. Water on a regular basis until the plants are fully established.

For both vegetative and planting by seed, fertilize according to current soil test after plants reach 3-4 leaf stage.

Guidelines for Planting By Seed

Seedbed: Clean till or dead mulch
Planter: Corn planter, no till drill, and grass drill
Seeding Rate: The recommended seeding rate is 10 lbs. of pure live seed (PLS) per acre. Below is an example for figuring the amount of seed to plant per acre:

Example: Pure Seed = 90% Total Germination 85% (90% x 85% = **0.765 PLS**)
Using the recommended amount of pure live seed per acre (10 lbs.) divide by **0.765.** The product is 13 lbs., the total amount needed to have 10 lbs. of pure live seed per acre.

Planting Time:
Seed: (a)Dormant season planting **December**. The seeds undergo natural stratification. (b)**April 1-May 1** Plant seed following 6-8 weeks of cool, moist storage. (Fungicide treatment is optional)

Stand Management:*(Applies to vegetative and seed establishment)* Protect the new stand from grazing or haying for a year to allow sufficient crown and root development. Stubble height should be maintained at six to eight inches. Persistent cutting or grazing below six inches results in lower dry matter yields and decline in stand vigor. In the fall, allow adequate time (40 days minimum) for regrowth to replenish plant reserves. Leave regrowth for winter protection and as a fuel for burning in February (if desired).

Maintaining fertility levels in the moderate range are sufficient. Control weeds chemically as needed.

For more information concerning Eastern gamagrass, please contact your local NRCS representative or the **East Texas Plant Materials Center** at (409) 564-4873 or write PO Box 13000, SFA Station, Nacogdoches, TX. 75961.